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Editorial

The first two articles in our issue are more intimately connected than would at first appear on reading their titles. If we had asked the authors to collaborate closely and to interpret each other's experience we could not have produced a better result. In fact we did not do this, and as far as we know neither author has seen the other's script, but the reader will see that Mr. Robertshaw has interpreted the theoretical principles of Professor Griffiths, and vice versa.

In Southport an important community problem, which had an intensified interest owing to the nature of the basic industry of this resort, was recognised by the community itself, who willingly participated and co-operated with health officers and voluntary agencies in the borough.

We have had the pleasure of taking part in the final ceremonial concluding the session. The enthusiasm and devotion of those members of the public who had given up their leisure time to studying food hygiene was remarkable. As Mr. Robertshaw says at the end of his article, the secret is the fullest co-operation between the health committee, the education committee and the local centre of the St. John Ambulance Association, but of equal importance is the quality of personal relationships between officers of the various departments of the corporation and the members of the various food trades. This co-operation seems to have been based entirely on empirical grounds, and the thing which strikes the reader in Mr. Robertshaw's article is the confidence with which all concerned launched this important and highly successful campaign.

On turning to Professor Griffiths' article, we see that the theoretical concepts of community behaviour which have been worked out at such length by the many investigators whom he quotes provide us with the general principles to be applied in health education work which are confirmed by the Southport experiment. Professor Griffiths identifies a series of stages each of which is characterised by the setting up of a group of people charged with some particular function. He calls these variously : the convergence of interest ; the initiating set ; legitimisation and

sponsorship ; the execution set or power group ; the fulfilment of the charter or goals. He also points out that informal communication systems are a greater agent for change in the community than formal systems, emphasising the importance of regular personal contact which is not deliberately organised.

One thing for which we should be very grateful to Professor Griffiths is his debunking of the doctrinaire theory which weighed heavily on health education a few years ago. He describes a naive period which at times " greatly irritated our professional colleagues in public health ". It certainly was very irritating to be asked to believe that every member of the population was born fully armed with health knowledge which only required to be organised through participation methods ; that professional training was of no use and indeed might be a hindrance to effective health education. If health education is to claim a place as a scientific rather than a political instrument of progress, then it must never be doctrinaire, and it is encouraging to see the attack on this coming from such a quarter.

Support for this comes from Southport, where all the community activities and events described by theoreticians came to pass after the lead had been taken by professional people and the local authority had mobilised local and national resources for this project. Incidentally, we doubt if many professional workers in Britain would recognise the depressing picture drawn by Hunter which is quoted by Professor Griffiths. There would be a stout denial that the professional has a marginal role producing conflict within the personality and possibly leading to what may be termed professional schizophrenia. In the British scene the traditional partnership between the professional and the elected representative, coupled with co-operation with voluntary agencies and the practice of a sound public relations policy makes such a picture impossible.

We should like to apologise to our readers for the late appearance of this issue of the *Health Educatian Journal.*

THE SOUTHPORT EXPERIMENT

By T. W. ROBERTSHAW, Cert. S.I.B., Cert. R.S.I. (Meat and Food), Certificate (Hons.) and Diploma, Institute of Hygiene, Specialist Food Hygiene Officer, County Borough of Southport.

In 1949, the late Dr. W. E. Fitzgerald, who was then Medical Officer of Health for the County Borough, reviewed the whole field of food hygiene generally, and the special problem of the subject in this holiday resort. Because of the heavy influx of summer visitors, the number of hotels, boarding-houses, cafés and food premises is considerable, and Dr. Fitzgerald reported to the Health Committee that adequate and effective supervision of these premises necessitated the appointment of a full-time officer. In August, 1949, the Council approved the appointment of a Specialist Food Hygiene Officer, to work under the direction of the Medical Officer of Health and the Chief Sanitary Inspector. His duties were those of inspection of food premises to ensure compliance with legal requirements, to endeavour to promote good relations with food handlers throughout Southport, and to secure their interest and co-operation in health education.

In February, 1950, the local centre of the St. John Ambulance Association came into existence, and Mr. J. N. A. Briscoe, F.H.A., the Hon. Secretary, conceived the idea of courses in personal hygiene, contacting several large firms in the district and securing their interest. Dr. Fitzgerald met the Principal of the Southport Technical College, Dr. Yates, in order to obtain permission for courses in food hygiene to be held at the College. Dr. Yates was at that time the Chairman of the local centre of the St. John Ambulance Association and was able to tell Dr. Fitzgerald that his Association was contemplating starting a course in personal hygiene (Mr. Briscoe had already a list of names of 35 intending

students). As the connection between personal hygiene and food hygiene was self-evident it was decided that the syllabi should be merged and the courses conducted jointly by the Southport Corporation Health Committee, the Education Committee and the St. John Ambulance Association. To meet the running expenses, the Health Committee agreed to make a grant to the St. John Ambulance Association in respect of each course.

It was agreed that, although it was desirable for all students to take an examination at the end of the course, this should not be compulsory. Since the courses began 70% (784) of the total students (1,113) have taken an examination and 69% (544) have been successful. The examination comprises a two hour written paper, questions being set by the St. John Ambulance Association Headquarters, the papers being marked by the Deputy Medical Officer of Health.

Considerable thought was given to the production of a suitable certificate for presentation to successful candidates and the design selected indicates that the student has passed an examination conducted jointly by the St. John Ambulance Association and the local Health Committee, signatories to the certificate being officials of the Association and the local Medical Officer of Health.

The format of the course being established, the next step was to awaken interest in the subject among food handlers. Circulars giving details of the proposed course were sent to the Chamber of Trade and other local Associations and to the occupiers of food premises. These were followed by visits by the Food Hygiene Officer to food traders, and there can be no doubt that this personal approach is absolutely essential to the success of a campaign of this nature.

The first course was held in autumn 1950, and repeated in spring 1951. Since that time two courses of eight weekly lectures have been held each winter. Sustained publicity and personal approach have maintained satisfactory numbers, and in this we were helped by the management of the few large food factories in the area, one firm going so far as to make it a condition of employment that their employees take a course in elementary food hygiene. The School Meals Service branch of the Education Department has also given full support to the scheme throughout its operation, and has encouraged all the members of the staff to take the courses.

In 1951 the staff of the Southport Health Department placed their notes on food hygiene at the disposal of the St. John Ambulance Association and these, together with material from the Central

Council for Health Education, and the Ministries of Health and Food were incorporated into the booklet "Hygienic Food Handling" published by the Association and used as the basic booklet at the lectures. Each lecture is of 1½ hours duration, approximately 1 hour being devoted to the speaker, the rest of the session being used for the showing of films to emphasise pictorially the lesson of the evening. At the close of the lecture students are given leaflets (published by the Central Council for Health Education, etc.) supplementing or recapitulating the information imparted during the evening.

The following table gives precise details of the constitution of the courses up to the summer of 1959.

	Trade	Number Attended to date	Number sat for exam. to date	Number passed to date
1	Bakers and Confectioners	105	62	33
2	Butchers and Meat Products	39	36	28
3	Catering I	321	180	123
4	Catering II	135	87	64
5	Fish Fryers and Fishmongers	13	10	10
6	Fruiterers and Greengrocers	2	2	1
7	Food and Fruit Preserving	239	209	143
8	Grocers	121	89	58
9	Ice Cream and Dairymen	16	11	7
10	Nurseries	64	54	41
11	Others	58	44	36
	TOTALS ..	1,113	784	544

Catering I — Boarding-houses, cafes and hotels.
Catering II — School Meals service, canteens and hospitals

It is customary for the Health Committee to award money prizes and books to the top two candidates in each examination.

Students who had passed the examination expressed a desire to have some emblem testifying to their success and in 1955, the Southport County Borough Council gave permission for its coat

of arms to be reproduced in badge and brooch form. This badge, enamelled in blue and with a chromium plated finish incorporates in the rim of the circle "The St. John Ambulance Association" and "Southport Health Committee", the bottom scroll being enamelled white with "Hygienic Food Handling" written in chromium against the background. These badges are proudly worn by those entitled to do so and can be widely seen in the lapels and overalls of shop assistants, catering staff and other food handlers.

In 1952, the Health Committee promoted a Safe Food Exhibition, the event being held in the Cambridge Hall and the adjacent Victoria Hall, situated in the town centre. Exhibits of food processing and packaging machinery were featured, together with modern hygienic equipment. The co-operation of the various Ministries was readily available and the Central Council for Health Education and the Central Office of Information gave valuable support. On each evening during the exhibition there were lectures and film shows.

By 1953, the courses in elementary food hygiene were well established and their effect had been to arouse a real and permanent interest in the subject. Requests were received for further, more advanced tuition. In this year Dr. Fitzgerald retired, being succeeded as Medical Officer of Health by Dr. G. N. M. Wishart who had, whilst Deputy Medical Officer of Health, himself lectured at the elementary food hygiene courses, and has a keen interest in the work. Under his guidance a syllabus was drawn up entitled "Advanced Food Hygiene", making provision for a detailed study of all kinds of food and drink. This syllabus was more ambitious than that of the elementary course and, with the support of the Health Committee, an approach was made to the Education Committee, which agreed to provide facilities for the classes to be held at the Southport Technical College weekly throughout the winter session of 1953 and spring session in 1954. The lecturers were Mr. E. Avison, Chief Sanitary Inspector, and Mr. Robertshaw, Food Hygiene Officer, the Deputy Medical Officer of Health giving two lectures on bacteriology. The venture proved entirely successful, attracting chefs, supervisors and those in executive grades in the food industry. Each winter since 1953, this course has received good support. The Health Committee awards a certificate of attendance at the course, bearing the signature of its Chairman.

The year 1953 saw a further expansion of the campaign, and, as

in the case of the advanced course, it was in response to the requests of previous students who wished to keep abreast of the latest developments in the subject. Thus the Southport Food Hygiene Association was born, the chair at the inaugural meeting being taken by Mr. E. Avison, Southport's Chief Sanitary Inspector. Those present expressed their desire to form an association which, whilst being independent of the Southport County Borough Council, was at the same time able to look for guidance to officials of the Health Department. Mr. Avison achieved this by recommending that the Hon. Secretary of the newly formed body should be the Food Hygiene Officer. This organisation is entirely voluntary, members paying an annual subscription. Membership is restricted to those who have taken a course in food hygiene and its Committee is composed entirely of food traders. For the past six years, monthly meetings have been held, being addressed by external speakers, each expert in his own particular branch of food handling. During the summer months visits are made to food factories and other places of interest in Lancashire and Cheshire. Mr. S. D. Burge was appointed Chief Public Health Inspector* in December, 1956, and at once gave valuable support to the movement, taking over the duties of Hon. Secretary in May, 1957.

Although an independent body, the Association was encouraged in its activities by the Health Committee and the Medical Officer of Health. Difficulty had been encountered in securing suitable accommodation in which to meet, but this pressing problem was solved by placing a room at the Health Department at their disposal. In 1958, the Association felt that its stability in numbers and finances was established, and they elected as their first President Councillor L. F. Spence, Chairman of the Health Committee, and as their first Vice-Presidents, Dr. G. N. M. Wishart, Medical Officer of Health, and Mr. T. W. Robertshaw, Food Hygiene Officer. The fact that these honours were gladly accepted indicates the mutual respect which exists between the Health Department and the Southport Food Hygiene Association.

Thanks to the kindly interest and support of the local press, the Association activities receive considerable local publicity, thereby keeping the vital subject of food hygiene in the news. In 1958, Mr. Arthur Holland, head of J. A. & P. Holland, a Southport firm of toffee manufacturers, gave to the Committee of the Association a handsome silver cup, known as the Arthur Holland Trophy, to

* Chief Sanitary Inspectors were given the title of Chief Public Health Inspectors by the Act of 1956.

be awarded annually by them in their absolute discretion to the person or persons whom they considered to have done most to further the cause of food hygiene during the previous twelve months.

In 1958, the educational work was developed yet again. Students who had taken the elementary and advanced courses in food hygiene asked for facilities to carry their tuition still further, and it was decided to promote a course in the bacteriology of food hygiene. Once again the Health Committee sought and received the ready co-operation of the Education Committee. The Technical College provided laboratory facilities, and in September, 1958, the course commenced. The lecturer was Dr. J. A. G. Watson, Deputy Medical Officer of Health, Southport, and the course continued weekly throughout the winter and spring sessions. Each lecture is of 1½ hours' duration, half the period being theoretical and the other half devoted to the preparation of cultures, slides, the staining and identification of bacteria etc. Twenty-two students enrolled for the course and already there is a demand for the next course which will be held during the winter of 1959/60. At a recent inspection of the Technical College by Her Majesty's Inspectors of Schools this work received high commendation. The Health Committee awards certificates of attendance at the course.

Some time ago, the Royal Institute of Public Health and Hygiene introduced an examination for their Certificate in food handling and after consultation between the Secretary of the Institute and the Medical Officer of Health it was agreed that students who had taken the advanced course or the bacteriology course should be eligible as candidates. It is gratifying to record that all seventeen candidates from Southport who took this examination in the spring of this year were successful.

In addition to regular courses of instruction, talks are given by officials of the Health Department to schools and various organisations throughout the town.

Interest in the campaign is undoubtedly maintained by the annual presentation of certificates and prizes, and impetus has been given to the work by the calibre of those who have honoured the town by accepting invitations to carry out these presentations. During the past six years the following ladies and gentlemen have been Guests of Honour :

1954 Colonel R. Hesketh, M.P. for Southport Constituency.

1955 Mr. Morley Parry, Food Hygiene Advisory Officer to the Ministry of Food.

1956 Dr. Betty C. Hobbs, Central Public Health Laboratory.
1957 Dr. J. M. Ross, Senior Medical Officer, Ministry of Health.
1958 The Countess Mountbatten of Burma.
1959 Dr. A. J. Dalzell-Ward, Medical Director, Central Council for Health Education.

To summarise this report, I feel that whatever success has been achieved has come as the result of co-operation between many interested parties. The functions of the Health Department are :—

1. To promote widespread interest in food hygiene.
2. To make available suitable courses of training on the subject.
3. To encourage activities which help to maintain interest.
4. To act as liaison between different sections.

In Southport there exists the fullest co-operation between the Health Committee, the Education Committee and the local centre of the St. John Ambulance Association, who between them provide the courses of training. Of equal importance, however, is the personal relationship between officers of the Health Department and the Technical College and between the Health Department and members of the various food trades. At the same time, every effort is made to ensure that the local press receive the fullest information of our activities and the strong support of the press has played a vital part in the campaign.

HAMPSHIRE COUNTY COUNCIL

HEALTH EDUCATION OFFICER required for new appointment, A.P.T. III (£880—£1,065). Candidates should have organising ability, knowledge and experience of health education and be accustomed to public speaking. A professional qualification or a university degree or diploma would be an advantage. Assistance with removal and other expenses in approved cases.
Application forms (returnable by 4th January) and further details from the County Medical Officer, The Castle, Winchester.

THE PRINCIPLE OF PARTICIPATION
Some Points to Consider*

By WILLIAM GRIFFITHS, Ph.D., Professor, School of Public Health, University of California, Berkeley, California.

DURING the last twenty years health education has not only been guided by the fundamental principle of participation, but the promotion of the principle has been the fundamental contribution of health education to the field of public health. This is not to say that other health disciplines have not also held and promoted this principle, but rather to emphasise the great importance given to the principle by health educators as a group. The principle of participation radically changed the field of community organisation, which in turn affected the ways that health educators worked with people in the community.

As might well be expected, we went through a rather naive period in this new era of community organisation, which at times greatly irritated our professional colleagues in public health. We cherished so dearly the " grass roots " movement that we made professional health people feel disloyal if they expressed any of their own ideas of how citizens might solve a problem. We were so enthralled with group discussions that they became ends rather than means. We made our colleagues, ourselves and others feel guilty if lectures were even suggested as appropriate methods of learning. Structure was a nasty word. Anyone who offered suggestions of order and control was exposing himself to being labelled " rigid " or " compulsive." " Representativeness " became a key concept, and no group, regardless of its objectives, could operate effectively

*Address to the Health Education Section, Western Branch, American Public Health Association, San Francisco, June 2nd, 1959.

unless it had representation from one or more ethnic groups or lower socio-economic classes. "Start where people are" was too often implicitly interpreted as a base line near zero, with consequences quite devastating because of this assumption.

In the beginning it was only natural to go to such extremes, for we could see our past errors and the tremendous importance of the principle of democratic participation for the future. Fortunately, we have become a little more sophisticated, and holding, to-day, the principle of participation with even greater respect, we are beginning to understand the complexity of its workings. We have become fully cognisant of the fact that for effective democratic involvement of people in community affairs such factors and forces as communication, motivation, organisational structure, dimensions of power and status and many others, are all exceedingly significant.

This paper is an attempt to discuss three points which might be of help in our effort to gain greater insights into the principle of participation. The first point deals with certain steps in the decision-making process ; the second, with the amount and type of participation in urban societies ; and the third, with power structure as it affects participation.

Holland, Tiedke, and Miller[5] in an article entitled "A Theoretical Model for Health Action" have devised a series of five phases for analysing the flow of action for an idea from the time it has been introduced to the time that it has either been executed successfully or discarded. The authors have called the first phase *convergence of interest*. This phase is the agreement by individuals with reference to the problem and the convergence of their own interests regardless of personal motives. The second phase, *establishment of an initiating set*, provides a basis for the development of an internal organisation, composed of individuals who have the right to initiate action and who on coming together define common goals. The third phase is one of *legitimisation and sponsorship* in which the initiating set must have their goals accepted by the larger social unit-groups and individuals in the community who have the right to legitimise action. The fourth phase is one of the *establishment of an execution set*, organisations, influentials, mass media and other channels, which will accept the goals of the initiating set and commence appropriate action. The last phase is the *fulfilment of the charter* or goals.

These flow of action phases, even though constituting a theoretical model, subject to support from empirical data, are useful for purposes of analysis. I should like to focus upon the second and

fourth phases, the establishment of initiating and execution sets, and discuss these in relation to the principle of participation.

I would propose the hypothesis that the greater the cleavage between the initiating and execution sets, the less likely it is that action will be completed ; or conversely, action is more likely to result the less the initiating and execution sets are distinguishable.

One of our difficulties in the past has been that we have in practice treated these two phases as discrete stages of an action process. Persons serving as initiating sets work with great enthusiasm and spend countless hours in establishing their charters or goals, only to find that the individuals designated as execution sets do not fulfil their task of completing final action. All of us are only too familiar with the fine accomplishments of initiating sets and the wastage of time, money, and effort that takes place because needed action does not occur. Councils of social agencies have collected excellent survey data on various facets of community life, only to have the results remain in inactive files. Health councils have embarked on admirable projects which never saw completion. Staff workers in voluntary and official agencies have laboured on many creative and important projects and activities, of which only a small proportion has been consummated.

What evidences are there to support the proposed hypotheses ?

The more closely the initiating and execution sets are to being identical, the less likely will be problems of communication. Health educators can relate many experiences of communication difficulties encountered when new members enter a group that has been working together for a long period of time. Holland, Tiedke, and Miller, in their theoretical model, have stated that one of the tasks of the execution set is to accept the goals of the initiating set. There is then, not only the problem of communicating reasons for proposed goals and methods, but the additional problem of having these accepted. The question might, also, be raised whether acceptance by the execution set might not be more difficult because of its being essentially a power group.

In a recent article[1] power was defined in terms of lines of action. The degree of power that an individual possessed was related to the number of lines of actions which he could pursue in meeting a goal. Assuming that power is one of the major components of the execution set, it may be seen that when actions of the initiating and execution sets are distinct, the number of lines of action of the execution set is minimal. The initiating set determines the goal and the method of meeting the goal. The lines of action open to

the execution set are in many cases limited only to those of acceptance or rejection. If power is the number of lines of action, then power has been taken away from a group which considers power as one of its main prerogatives.

In many instances it is not possible for the initiating and execution sets to be identical. Where overlap cannot be obtained, the initiating set is more likely to succeed in its tasks if it can be involved by the execution set in all preliminary steps of decision making.

The second point relates to the amount and type of participation in urban societies. It has taken us a rather long time to come to the realisation that in many of our communities, urbanisation has radically changed the amount and type of participation that we can expect from citizens. Greer, in reviewing a number of studies of participation patterns in metropolitan areas, has been impressed with the consistency of findings. Greer[4] states (p. 333): "neither in Melbourne nor in American cities do we find much participation, by most people, in formal organisations of the community. The family retires to its domain, to work in the garden, listen to radio or television, care for children, and read".

For the urban dweller, his family and his small circle of friends, and to some extent the mass media, are the influential forces within his life. In most cases, even work associates are not, as once believed, part of his primary relationships.

Most of us have now come to accept the fact that informal interaction systems rather than formal systems are the major change agents in the community. Moreno[11] has stated (p. 450), that in a community "the local districts are, so to speak, transversed by psychological currents (networks) which bind large groups of individuals together into units, irrespective of neighbourhood, districts or borough distinctions. These networks are the kitchens of public opinion. It is through these channels that people affect, educate or disintegrate one another. It is through these networks that suggestion is transmitted".

Research studies in industrial marketing, voting behaviour, adoption of farm practices[2], and investigations of special interest to health workers on diffusion of innovations among physicians[3, 6], have also shown the importance of informal communication networks.

There is no intention to minimise the importance of formal organisations in our society; their value is unquestionable. I do believe, however, that many of us have been slow in rediscovering

the " primary groups." The Committee for Autonomous Groups has been one of the lone voices which has persistently emphasised the significance of the informal group in our society. In the report to the Fourth International Congress on Mental Health, the Preparatory Commission on Autonomous Groups made a strong plea for the promotion and encouragement of informal groups in the local community. The report[13] named public health educators as one group of specialists who work with the general public, but who (p. 51) " must be given the kind of understanding that will enable them to work creatively with the associative inter-action systems (informal groups) of the local community ". The Preparatory Commission was concerned with attitudes towards informal groups for it wrote (p. 46) : " The low regard in which associative inter-action systems are held makes spontaneous, intimate, everyday association with friends appear frivolous, self-indulgent and socially insignificant. Thus the disheartening conviction gains ground that only participation in the purposeful programs of Formal Organisations is worthwhile ".

Merrell and his co-workers[9] found in California that poliomyelitis vaccination was related to peer influence and to socio-economic status but a more recent study by Sills and Gill[15] showed that (p 252) " living among vaccinated people is more important as a determinant than socio-economic status ". For example, it was discovered that (p. 252) " more than half of the high socio-economic status group reported knowing a vaccinated adult, and of this group 35 per cent. had been vaccinated themselves. Among other high socio-economic status people, on the other hand, only 4 per cent. had been vaccinated ".

The investigators concluded from their findings that programmes which attempted to diffuse new practices must be talked about in informal networks, for people tend to behave in the way that their friends behave.

To know the importance of interpersonal influences is not sufficient. From practising health educators there is a real need for documentation as to ways in which they have been successful or unsuccessful in reaching informal networks in the community. With these data the practice of health education will be greatly advanced.

The third point relates to power and participation. Public health educators during the last few years have become increasingly interested in the concept of power, for they see the significant role it plays in the field of community organisation. Persons with power

in a community can serve as effective facilitators of public health activities and they can also erect barriers that are at times insurmountable. Lewin with his concept of " gatekeepers "[7] provided most of us with our initial understanding of how power influences so many of the community public health activities in which we are engaged.

Traditionally, power in the United States has been conceived as existing in the hands of a few. Recently sociologists have taken a renewed interest in the subject and there has been an abundance of publications, both journal articles and books, which for the most part uphold the traditional view of power. Two recent books which have been widely discussed by public health educators are Floyd Hunter's *Community Power Structure*[6] and C. Wright Mills' *The Power Elite*[10].

After reading a book like Hunter's *Community Power Structure* many public health workers are left with the impression that a relatively few people in each community, for the most part business men, control all decision making. Hunter believes that professional workers have little or no power. He has written (p. 237) :

> " The professional workers in Regional City, particularly those employed in the social agencies and in the planning agencies, are quite susceptible to moods of pessimism. They are employed by and subordinate to the upper-structure of power whose interests they are supposed to have in mind, and yet in most cases they work with and are dedicated to the improvement of social conditions of the under-privileged. The role of such a professional is thus a marginal one producing conflict within the personality involved and possibly leading to what may be termed professional schizophrenia. The professional is isolated from the upper reaches of power, and he is generally rather effectively isolated from the average citizen."

Hunter, and the others who have followed his general research procedures, have collected valuable data, but I do believe that these studies have serious limitations. Without going into detail in regard to Hunter's methodology, if it is examined carefully, it may be seen that Hunter has really uncovered only one aspect of power in the community—economic power. He writes as though this were the only power within community life and that the persons who possess it are invariably the same group.

Reisman[14], on the other hand, has written (p. 160) : " Power in America seems to me situational and mercurial ". He believes that no longer does power favour any one particular class or group and that the future is in the hands of many special interest groups : small business men, big business, military men, ethnic groups,

labour, farmers, professional workers of one kind or another, and numerous others.

Polsby[12], in a very recent article, offers an excellent critical analysis of the Hunter and other power studies. He is also of the opinion that one cannot say at this time that community power structure is general and unchangeable.

It is certainly true that the paths of special interest groups cross and at times they are in conflict with one another, but each is able to do a great deal in promoting self-interests. Public health workers must view themselves as one of many power forces in the community and it would be a serious mistake if public health workers were ever to believe that every decision affecting public health was eventually made by the few holding economic power.

Through our work in communities we have learned to identify power fairly well in formal systems—government, agencies, organisations and groups of one kind or another. We still have much to learn, however, in working easily and skilfully with power forces in formal groups. The major task that lies ahead of us is one of gaining greater knowledge and understanding of power forces within informal systems. We must experiment with different methods of identifying power within informal systems and learn to involve persons with power in community activities for the promotion and betterment of the public's health.

Each year we glean from both research and practice additional facts and understandings about the principle of participation. This paper has been an attempt to discuss only three points relating to the advancement in our comprehension of the principle of participation. There are, indeed, many more points which could be discussed.

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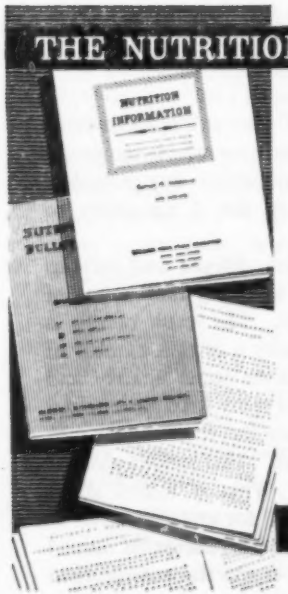

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AN INTERVIEW WITH THE RT. HON. EARL RUSSELL, O.M., F.R.S.

(BERTRAND RUSSELL)

In August of this year, Dr. Dalzell-Ward visited Lord Russell at his home and discussed subjects which ranged from mental health to the wellbeing of the aged, and which included the special problems of the adolescent. As readers will see, Lord Russell had some valuable advice to offer on the use of leisure, and advocated adventure and the challenge of natural forces for the young.

We wish to express our gratitude to Lord Russell for granting this interview and for permission to publish the following extracts from the discussion.

DALZELL-WARD :

Lord Russell, I have read a good deal of your writings and some of them, of course, I can understand ; and one which impressed me most was your *Conquest of Happiness*, which was published 29 years ago. May I read you a passage that I remember so vividly from that ?

> " One of the sources of unhappiness, fatigue and nervous strain is inability to be interested in anything that is not of practical importance in one's own life. The result of this is that the conscious mind gets no rest from a certain number of matters each of which probably involves some anxiety and some element of worry. As a man gets more tired his external interests fade and as they fade he loses the relief which they afford him and becomes still more tired. This vicious circle is only too apt to end in breakdown. What is restful about external interests is that they do not call for any action."

Now, sir, this fits in very well with our modern concept of mental health, but I wonder how far society can create the environment which makes this possible. Can we on the one hand help people to

deliberately cultivate this external, not personally useful, activity or can we somehow modify the social environment which encourages this ?

RUSSELL :

Yes, I think we can. I think there are a great many things you can do to give opportunities for what in a large sense you may call play, and I think without opportunities for activities that are not intended to be useful, without that, men become too strained and too tense and it results in very very great misfortune.

DALZELL-WARD :

To-day, there seems to be a tendency for a utilitarian approach to life. One has so many examples of men being completely divorced from their families for the sake of making extra money. And then of course breakdown does ensue often. Have you seen that yourself ?

RUSSELL :

Yes, I've seen it a great deal, more I think in America than here, but I think here it is coming along, and it's a very great danger. I remember a thing that interested me rather. I was talking to a German—it was during the days of Hitler—and this German was in London and he'd been astonished to see grown-up men putting boats on the Round Pond. And he said " You'd never see that in Germany." And I thought " Well now, that's perhaps what keeps us sane ".

DALZELL-WARD :

Yes, indeed. Does this fit in with your own ideas of how to enjoy the world ? You have often expounded views on that, and many people have been encouraged by them. Is this connected with that ?

RUSSELL :

Very much so. It's very very important that you shouldn't think that all your activities must be useful. If you think that you get desiccated, and you get strung up. You must have activities that are not intended to be useful at all, that are merely times when you are not being responsible. I think that's very important.

DALZELL-WARD :

Yes. But do you think that our education system now is orientated so much to our strategic and economic needs that children are being perhaps encouraged more and more to engage

only in utilitarian activities ? Do you think they are going to lose that opportunity of less useful activities ?

RUSSELL :

Well, I hope not. I think it's very important that young people, not only children, but adolescents, should have opportunities given them, opportunities organised for them if necessary, to have adventure and play, and the sort of fun you get in mountaineering or in swimming or any kind of rather strenuous activity that is not useful.

DALZELL-WARD :

Yes. I remember seeing a little while ago a television programme from one of the new towns. Two teenage boys were being interviewed and they said " Well, this place is fine for the married people with their families and their houses, but as for us, we're going to save up to get a motorbike so that we can get to London as often as possible." Now it does seem that the Welfare State has benefited young married couples with young families chiefly. Adolescents don't seem to have done so well from the emotional point of view. What would you comment on that ?

RUSSELL :

Well, I should comment on that, that you ought to have organisation of adventurous holidays. I think you should have opportunities for bands of adolescents to go to mountainous regions and race up mountains, and compete with each other in getting up mountains, and if they got better they could do dangerous climbs. But you must have a spice of adventure in it. It won't do to make life all tame. Adolescents won't stand it.

DALZELL-WARD :

Yes, Do you think there is something to be said for competition against natural forces as against competition with our fellows ?

RUSSELL :

Yes, I think it's very much better to have competition with natural forces. As we get more control over Nature and natural forces we have more and more power of injuring each other, and it therefore becomes more and more important that we shouldn't *wish* to injure each other. And the element of force and adventure should if possible go into combating natural obstacles rather than human obstacles.

DALZELL-WARD :

Yes. Well, do you think that a policy of a Welfare State has that in mind ? That doesn't seem to have been included.

RUSSELL :

I don't think it has been included. I don't think that the kind of elderly officials who arrange things are still feeling adventurous the way young people do, and I think they've forgotten what young people want out of life.

DALZELL-WARD :

Yes. I wonder whether you would think perhaps that the word "wellbeing" was better than "welfare" here, because wellbeing is achieved in a variety of ways.

RUSSELL :

I think "wellbeing" would be better, yes.

DALZELL-WARD :

Amongst others of your writings there is one fragment which perhaps to you seems rather a trivial selection, but it has always remained in my memory. You described the day when you were walking along a lane in Cambridge. You were puzzling over some philosophical problem or theory and suddenly there was a revelation of the significance of it, and you were so elated that you threw a tin of tobacco high into the air in sheer exuberance. Now it seems to me that this physical and mental wellbeing derived from purely intellectual pleasure is something that is lacking from the personality of the majority of people. Therefore they have to seek so much diversionary pleasure and activities, often at great cost. Now is this purely intellectual exhilaration the prerogative of the trained superior intelligence or do you think that we should be able to help everyone to a similar experience ?

RUSSELL :

I think you can give something similar. I think in its purely intellectual form it is bound to remain rather exceptional, but I think you can get it in artistic forms. You get it in various different ways for different people. A young man might have musical talent and suddenly think of a lovely musical phrase, and it would be just the same sort of experience, though in a different sphere. But I think in the purely intellectual sphere it probably would be rather uncommon.

DALZELL-WARD :

You don't think that we could identify the pleasure element with intellectual pursuits as the pleasure element is identified with sex ?

RUSSELL :

Well, I think it would be only for some people, because the

intellectual pleasure that was in that incident you quoted was after a great deal that had been very much the reverse of pleasure, a great deal of intellectual strain suddenly relieved. Most people, I think, will not want all that intellectual strain beforehand.

DALZELL-WARD :

I see that these moments are really rare, then.

RUSSELL :

I think, essentially, yes.

DALZELL-WARD :

The next thing I'd like to ask you is on the question of your suggestion that respect for humanity for its own sake, plus intellectual engrossment, can be a substitute for religion. Well now, historically man has never shown any love for his neighbour and it is difficult to imagine that he ever will do so. Would you like to comment on this ?

RUSSELL :

Yes, I should like very much to comment on it. I think it's not *quite* fair to say that he has shown no love for his neighbour. He has shown, often, love for people in his own group. What you don't get easily, is love for people in another group. And that I think can only be dealt with by getting people to feel that the only group that counts nowadays is all humanity and that, so to speak, all humanity is against certain natural obstacles—natural obstacles and not human ones. And I think that that mentality could be taught in schools. At present it isn't—you're taught nationalism in schools, or the pre-eminence of some creed or something, but something that excludes a part of mankind, and that is a very great pity.

DALZELL-WARD :

Yes. You don't think that when we achieve identification with the total world group we shall then wonder what lies beyond. You don't think that religion will be necessary at that stage ?

RUSSELL :

No, I think—I know, of course, I can't get people to agree with me over this—but I think religion has always been harmful and I hope it will die out altogether.

DALZELL-WARD :

Do you think we have grown less cruel as a society ?

RUSSELL :

We have, certainly, in this country. If you read the sort of

things that people used to do even in Elizabethan times, they were very very much more cruel. Consider being hanged, drawn and quartered—we couldn't tolerate such a thing nowadays, but it was taken for granted in those days. Oh yes, I think we certainly are less cruel, but I'm not quite sure that that is true generally.

DALZELL-WARD :

What are we going to do, then, to help people handle their natural aggression ? Wouldn't you agree that it is perfectly natural to be aggressive ?

RUSSELL :

Well, I want them to have aggression against impersonal things—aggression against mountains, aggression against oceans, aggression against wild beasts if you like, but not against people. And I think the aggressive impulses have got to have their outlet, but it should be that sort of outlet, not a human outlet.

DALZELL-WARD :

It seems to me, Lord Russell, that what you are advising us to do in our own field of health education, for example, is to depart from our conventional activities of advising protection and care and caution, and to advise adventure. Is that correct ?

RUSSELL :

Yes, I think so. Of course, in so far as you organise it you would take care that the adventure doesn't lead to any great misfortunes, that the worst you risk is spraining an ankle or possibly breaking a leg, but not death. That obviously you couldn't organise. But I think there's got to be an element of risk to make the thing interesting.

DALZELL-WARD :

Can there be any risk and adventure for old people ? They are the group now that's giving us the greatest concern in public health. Their wellbeing means much more than just protection against common dangers, and economic support. Is it possible for an aged person to enjoy risk and adventure ?

RUSSELL :

I doubt it rather. I think *that* pleasure is the pleasure of the young, and it's an odd thing that the nearer one gets to death and the less importance there is in preserving one's life, the more anxious people become to preserve it. You will find old people much more afraid of death than young people, and I don't think they do love adventure. I think they have to be provided with

more peaceful things—I mean cultivating a garden if that's what they like doing, or crossword puzzles if that's all that interests them—but something less adventurous than the young want. You see that with animals : young animals are full of adventure, old animals are not.

DALZELL-WARD :

Cultivating a garden gives you some sight of the future, doesn't it ? One has heard of a centenarian buying some new apple trees, though he might never prune them. Do you think that gardening, then, has some particular significance for employment of the elderly.

RUSSELL :

Oh no, I don't think so. No, I think it's not specially an elderly person's pleasure.

DALZELL-WARD :

But you don't think that it might have particular emotional significance, in giving them some feeling of immortality or perpetuity of their own ?

RUSSELL :

I never had thought so. No, I don't much think so.

DALZELL-WARD :

You don't like gardening yourself ?

RUSSELL :

I don't, no.

DALZELL-WARD :

But you enjoy being surrounded with lovely gardens.

RUSSELL : Yes.

DALZELL-WARD :

Thank you very much. This is a very great privilege. In coming to see you, sir, I was very much reminded of Boswell and his persistence in getting an interview with Voltaire. When he arrived he found that he had nothing to say and Voltaire had no idea why he had come there. I hope that I have been able to put up a better show with you on this occasion.

RUSSELL :

I think you have put up a very much better show, yes.

EVALUATING HEALTH EDUCATION AIDS

By NANCY T. WARD and A. C. JACOB.
Department of Social, Preventive and Family Medicine,
Faculty of Medicine, University of Natal and
Institute of Family and Community Health, Durban.

DURING a recent health exhibition, organised as part of a community health education programme, posters intended for use were evaluated. The aim was to assess public reaction to them and understanding of the intended message.

Individual women representing a cross section of the indigenous African (mainly Zulu) and Indian communities in which the Institute of Family and Community Health runs a health service,[1] were interviewed in groups and asked what they understood from the posters. Their answers indicate clearly the need for adequate evaluation of health education aids prior to their use in a community. Our experience confirms the findings of Knutson[2,3], that the value of aids is negated unless this procedure is carried out.

In preparing health education material the expert tends to use symbols and couch the intended message in terms of his own understanding of the problem. Insufficient attention is paid to the suitability of symbols used, the technique of design, standard of health education and cultural beliefs of the persons for whom the material is intended. Because of these factors many aids may be so misinterpreted that they are of little value.

Findings on groups interviewed.

AFRICAN GROUPS.

Example I.

Figure I shows a poster which was prepared for a health education programme directed towards the problem of obesity. The purpose was to emphasise the physical strain associated with obesity by

drawing a comparison between an obese woman and an overloaded truck.

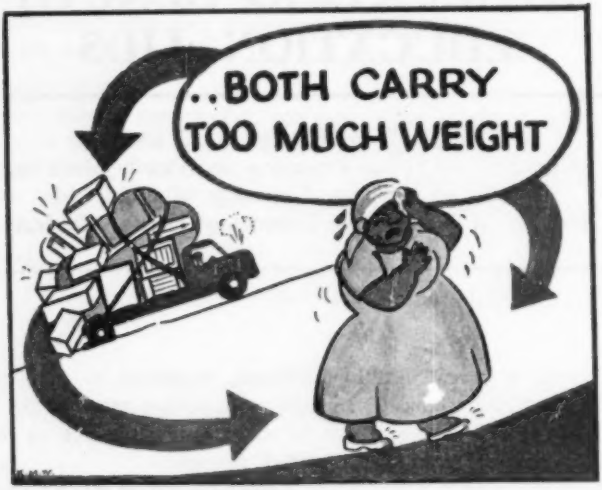

Figure I.

Group Interpretation :

Test I : Number interviewed—10.

The common view held by the total group was that overeating made a person fat and caused sickness.

This group then interpreted the poster as showing a fat person and outlined the cause and effect of this condition. No mention was made of the analogy with the overloaded truck.

Test II : Number interviewed—4.

Two women in the group expressed the view that eating excessive quantities of mealie rice, porridge and maize foods was not good for the body because it made the body " full of water ".

The response, however, of the remaining two women was of particular interest. They felt that the poster depicted a rich woman with her own truck loaded with possessions. This they said was the reason for her being fat. They added that she must also be happy.

Significant here is the fact that the latter two women had placed a frank cultural interpretation on the poster. They were both literate in English yet despite this, the caption on the poster had in no way influenced their interpretation. In fact, one of the women had not read the caption at all. To them fatness denoted

prestige, wealth and happiness. This view they share with the majority of Africans who consider that a man of importance should be broad of girth and that a woman who is fat bears testimony to a husband's care and attention. A thin woman is said to be unhappy and neglected. For these women, then, the poster depicted a fat, happy, affluent woman who owned her own truck overloaded with possessions.

Test III : Number interviewed—9.

The views of this group were that it was not " good " to be fat for it was the cause of tiredness, sore feet and it also affected the heart.

In this test too, the analogy with the overloaded truck was overlooked.

Example II.

Figure II.

Figure II shows a poster which was also prepared for the health education programme on obesity. The intention here was to compare the activity of a well nourished slim woman, energetically sweeping and dusting, with the inactivity and discomfort of an obese person leaning on a table for support.

Group Interpretation :

Test I : Number interviewed—4.

There were divergent views expressed in this group. One person thought that the fat woman was the mistress of the home and that

she was insisting that certain work be done by the other woman. She was fat because she had a servant.

Another individual thought that the fat woman was ordering the other woman to polish the table.

The two remaining individuals in the group said that the poster showed two women, the one active and the other inactive. The latter had become like this because she had grown too fat.

Thus in this test too, a cultural interpretation was placed on the poster. Fatness was associated with prestige, and the obese and slim women were seen in the role of mistress and servant respectively. When questioned, the two women who had given this interpretation were found to be literate in English. In this particular poster the caption itself had given no indication of expert intention but had placed reliance on the picture to convey the message.

Test II : Number Interviewed—19.

There was general agreement that the poster showed an obese woman who had left all the work to the thinner person and that the former was too fat to move about easily. They felt too, that it was unhealthy to be fat and that they would not wish to be like that themselves.

Here the group interpretation did not differ from the intended message.

Example III.

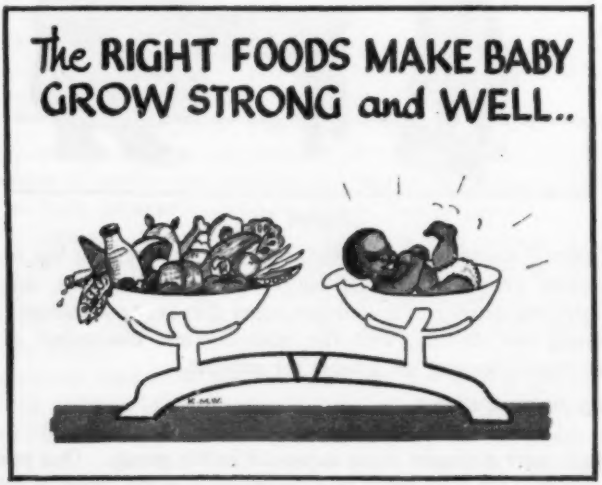

Figure III.

Figure III shows a poster which aimed at stressing the importance of an adequate diet for the healthy growth of infants. This is symbolised by a baby on a scale balanced against a variety of foods.

Group Interpretation :

Test I : Number interviewed—9.

The views of this group were that the poster showed the food which should be given to babies and which would make them grow and gain weight.

In this group then the group and expert intention did not differ.

Test II : Number interviewed—4.

All the women in this group said that the poster showed the foods that a baby must be given because of their importance for health. In addition, two individuals thought the baby was having a bath, while a further comment was that a baby could not eat all the foods shown in the poster.

In this test, whilst a more sophisticated interpretation was given to the poster, the real significance of the scale was overlooked and in fact mistaken for a bath by two individuals.

Test III : Number interviewed—20.

In this group there was common agreement that if a child was given all the foods in the poster it would grow well. Eight women also thought the baby was having a bath.

As in the previous test the scale was mistaken for a bath by several women.

Example IV.

Figure IV shows a poster directed to the problem of gastro-enteritis in infants.

The way in which a baby can be protected from disease is shown in 3 separate pictures, the first showing the washing of hands before the preparation of the baby's food and before feeding the baby, the second the washing of feeding utensils before and after use, and the third the covering of food from fly contamination.

Group Interpretation :

Test I : Number interviewed—9.

The interpretation of all the women in this group was that hands and teats should be washed before feeding the baby, that dishes should be washed before and after use, food should be covered to keep flies away and that in these ways a baby could be prevented from becoming ill.

In this test there was agreement between both expert intention and group interpretation and in addition a further point was raised in regard to the washing of teats before feeding the baby.

KEEP YOUR BABY FREE FROM DISEASE
WASH HANDS
before you prepare babys food and before you feed baby..
WASH DISHES
well both before & after use..
COVER FOODS
do not let flies settle on them

Figure IV.

Test II. Number interviewed—4.

Test III. Number interviewed—20.

Test IV. Number interviewed—8.

In all these three tests group interpretation was similar to Test I.

Test V : Number interviewed—3.

The women in this group all thought that the first picture showed a baby's bottle which contained milk being cooled in water, the second picture a mother with a pot of cooled milk, and the third picture a variety of foods, but they could not understand why all this food was there as the baby was still on the bottle.

This group in their interpretation of the poster did not then make any mention of the points which the expert had intended the poster to convey. When questioned, it was found that one of them was literate in English, whilst the other two were illiterate.

Example V.

Figure V shows a poster which aimed at stressing the importance of milk in the diet of children in their first 3 years of life. The poster shows three children at different developmental levels—the infant, 2-year-old and 3-year-old, together with a bottle of milk.

In the original poster each figure was superimposed on a circular yellow background in order to make it stand out more clearly.

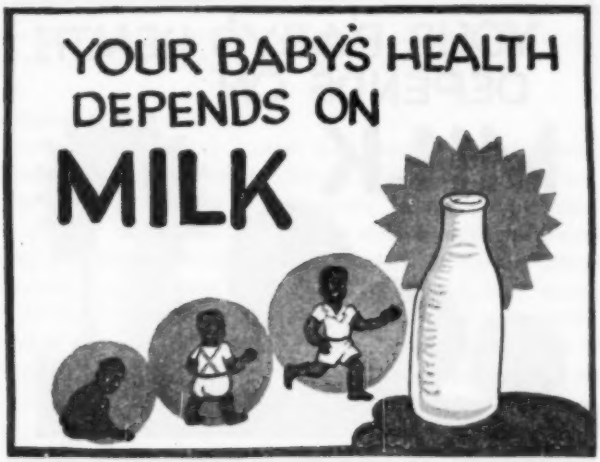

Figure V.

Group Interpretation :

Test I : Number interviewed—20.

Eighteen of the women in this group interpreted the poster as indicating that a child must get milk at all stages of development. However, the remaining two women said that the baby in the poster who was seated, was miserable, its back was deformed. It had not had milk like the other two children who were running for the milk.

The interpretation of all but two of the women in this group did not differ from the intended message and in the case of these two they had interpreted that milk was important for young children, but had thought that the poster was comparing well nourished children who had been given milk with a malnourished one who had been deprived of it.

Test II : Number interviewed—12.

The response of all women in this group was that milk should be given to children at all ages and they would grow satisfactorily. Another point mentioned was that it was particularly important to the child until he was able to run.

In this test, then, there was agreement between expert intention and group interpretation.

Example VI.

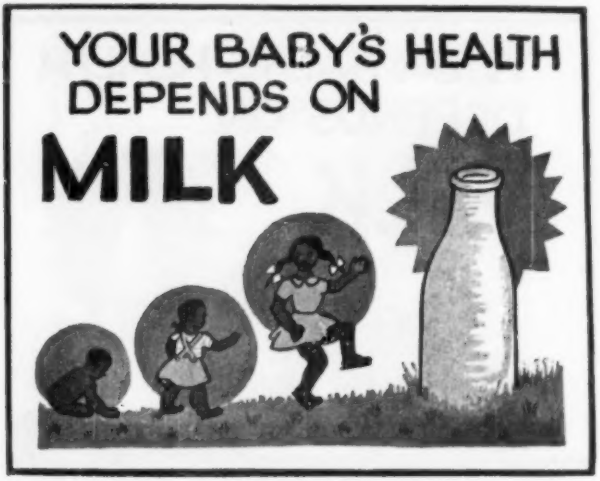

Figure VI.

Figure VI shows a poster similar to the one used in Example V, but modified for an Indian community.

Group Interpretation :

Test I : Number interviewed—9.

All the women in this group said that the poster showed that babies must have milk for good health.

Here the interpretation did not differ from that of the expert, but no mention was made of the need for children to have milk at all developmental levels.

Test II : Number interviewed—4.

Three of the women interpreted the poster as showing three lovely healthy babies whom milk had made grow, whilst two of them had an added interpretation to make. They felt that the babies had been intentionally drawn separately and encircled to show that babies should be kept apart when they had diseases such as " coughs " and " fevers ".

The remaining woman in the group thought that the yellow circle around each child was an orange and that the poster was emphasising the importance of orange juice and milk for a baby's health. She stated further that there was no sand in the poster, only grass to show that children should not come in contact with sand which contained disease germs.

In this test all the women had interpreted the poster as showing the importance of milk for children, but the point in regard to the need for children to have milk at different developmental levels had been overlooked. Additional points raised were those in regard to isolation, the importance of orange juice for children and the danger of contact with disease-infected soil.

Conclusions.

From these findings it is clear that interpretation of posters was influenced by a number of factors. Where the intention had appeared to be obvious to the expert, public interpretation had in a number of instances given it an entirely different meaning.

Cultural beliefs were a highly significant factor influencing interpretation. Support for this is to be found in both examples I and II where obesity, far from being considered undesirable, was regarded as a sign of wealth, happiness and authority. In fact in example I where the caption on the poster had actually emphasised " overweight " as undesirable, this had in no way influenced the interpretations made by some of the women. In example II, since the caption itself gave no indication of expert intention, the possibilities of a cultural interpretation being made were increased. The importance too, of using symbols familiar to a culture group is apparent in example III. Here a number of individuals overlooked the scale as a symbol of weight growth and in fact misinterpreted it as a bath.

The size of a group, too, appears to have affected interpretation, for smaller groups tended to give deeper cultural interpretations and to differ in opinion. This is shown in example I where in tests I and III, consisting of 10 and 9 individuals respectively, a common non-cultural interpretation was given which was in agreement with expert intention, whereas in test II, consisting of a group of 4 individuals, a cultural interpretation was made by two of them. Again in example II, whereas in test II with a group of 19 women the interpretation did not differ from expert intention, in test I with 4 individuals, a cultural interpretation was made by two persons. Another factor worth consideration is the influence of one person's suggestions on others, and it may well be that in larger groups the views of one individual carry greater force in determining group opinion than they would do in smaller groups.

It is obvious, too, that health education knowledge influenced considerably interpretation of the posters. This is apparent in example VI where in test II, apart from the interpretation that the

poster showed the value of milk for children, some individuals said that it also stressed certain facts in regard to communicable disease and diet of the infant. These topics were in fact being handled either in current health education programmes or had been included in previous programmes.

The problem of preparing posters for illiterates is well illustrated in example IV, test V, where two illiterate women arrived at conclusions entirely different from expert intention. Another point which emerged in examples I and IV was that literate women had not read the captions on the posters and had based their interpretation on the pictures alone. This presents yet another problem, for the expert relies on both caption and picture to convey his message. Undoubtedly, in many instances, the pictures in a poster will first engage the attention of an audience and then be followed by the reading of the caption, and one wonders how often the caption itself may be completely over-looked.

The importance of using a technique of design familiar to a particular culture group is shown in examples III and VI. In example III strokes intended by the artist to highlight the baby may well have been interpreted as splashes of water, hence the idea that the baby was having a bath. Again in Example VI the yellow circle used as a device to highlight the figures was interpreted as a symbol of isolation by some individuals and by another as an orange, while it was thought that the grass was intentionally introduced to stress the danger of disease-infected soil.

It is clear, then, that without evaluation of these posters prior to their general use, their effectiveness would have been considerably diminished. The principal of evaluation has relevance for all types of health education material—films, pamphlets, exhibits, flannelgraphs, and particularly where the aid as such is intended to be self-explanatory. Health education programmes, relying largely on mass education techniques, may well depend for their success on the effective evaluation of health education material.

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FLUORIDATION AND PUBLIC OPINION

By A. J. DALZELL-WARD, M.R.C.S., L.R.C.P., D.P.H., Medical Director, The Central Council for Health Education.

FOUR years ago, a group of participants at the Annual Summer School in Health Education undertook the production of a leaflet on fluoridation as a practical task. When this leaflet was presented at the plenary session, a doctor from one of the Arab countries said that he could see no point in such a document. Fluoridation, he observed, was a matter for " the authorities ". It was not for the public to make the decision.

On that particular occasion this idea aroused no passions at all, but we do meet people, including those whose interest is public health, who are furious at such a suggestion. These people have never questioned the propriety of adding chlorine to drinking water, assuming probably that the community is well informed on this matter, and that there could be no objection. This has been confirmed in Bedford, where the Medical Officer of Health told the public, via the local newspapers, that the introduction of chlorination in 1930 aroused no opposition at all.

However, there are others who would support the doctor from the Arab countries. These people claim that there would have been no trouble at all if fluoride had been quietly put into the water and nothing had been said about it. Such a manoeuvre is impossible, for every public authority has to account for its expenditure. In Bedford, for example (*Bedfordshire Times*, 27th February, 1959), the Chairman of the Health Committee was quoted as saying :

> " They were not asking for authority to add fluoride to the water, or even to purchase the equipment. All they were asking was to be allowed to lay electric cable which would operate equipment if it ever became necessary, and also to

fit a duct as the new treatment works were being constructed."

Similarly in Hereford (*Hereford Times*, 9th January, 1959) controversy about fluoridation arose because of another issue, namely, whether a water board would be established. The M.O.H. had advised his council that in this event the city would lose its right to fluoridate its own water. Such issues cannot be kept secret and the result has been that the anti-fluoridation movement has had an opportunity to cultivate public opinion in its own favour.

There has never been a genuine assessment of public opinion on this issue. One might, with justification, suspect that the great bulk of people are not really disturbed one way or the other. The revelation of the accidentally high levels of fluorine in Maldon and elsewhere was not followed by a movement aimed at diluting the water or removing the fluorine. But public opinion can be mobilised by a vocal few.

When mobilised by anti-fluoridationists, public opinion was strong enough to prevent the introduction of fluoridation at Darlington and to secure its abolition at Andover. Dr. Alun Phillips of Carnarvon (*Liverpool Daily Post*, 21st August, 1958), observed that :

> " People of alert intelligence are seldom taken in. Those who succumb are usually (as a social survey showed) the aged and those of limited education ".

The power of the opposition of a determined few was referred to by Dr. McKenzie, M.O.H. of Hereford (*Hereford Times*, 20th March, 1959), who was quoted as saying :

> " Even though an overwhelming majority of Hereford people might vote in favour of fluoridation, their wish could be thwarted by the determined opposition of a few ratepayers, in spite of the fact that opposition lacks reliable scientific support."

This was shown in the case of Andover, where the issue became an electoral one. A personal communication from a former member of the Council explained that owing to the splitting of the vote between the parties the total pro-fluoridation vote was actually larger than the anti-fluoridation vote. In the case of Darlington, the M.O.H. analysed public opinion as follows (*Northern Echo*, 27th September, 1956) :

> " Three strands, at least, could be differentiated among the arguments used by opponents of the scheme. The first and most reasonable was that not enough was known about it ; the second related to personal freedom, maintaining it to

be improper to interfere with a universal commodity by adding what was after all a poisonous chemical ; and the third was a hysterical reaction giving lip service to either or both of the others."

The comment was also made that editors leaned in their personal views to the second adverse proposition, in editorials and cartons, and by publishing extensive adverse correspondence. This is not generally true, for in September, 1957, objective comment and favourable publicity were given to the W.H.O. Expert Committee on Fluoridation, whose report had just been published. On 5th September, there appeared favourable comments in *The Times*, *Yorkshire Post*, *Dundee Courier and Advertiser*, *Chemical Trade Journal* and *Far East Trade*.

Nevertheless, there have been three instances where editing, probably technique rather than policy, has conveyed an impression of mischief. Thus, the *Luton News* on 1st May, 1958, published the following paragraph without any explanation or context :

> " A Harley Street Doctor who has tested Watford's fluoridated water has stated that it would be definitely harmful to about one person in three. The doctor speaks of very serious contamination and says that he and his assistant both said they would not like to be drinking Watford water. The issue ties up with aluminium potency in which the doctor specialises."

Here the use of " Harley Street " and " specialises " gives the statement authority in the mind of the uninformed reader. The careful professional-like deliberation with which one person in three is mentioned, the tendentious and slightly condescending way in which the doctor *and his assistant*—he must be a substantial man —bless their good fortune in not having to drink the stuff—all this is mischievous.

It was editorial technique, surely, which produced the two other examples. The *West Herts Observer*, 24th June, 1958, said :

> " It will be no use complaining about taste in Watford water. It will taste differently not because something has been added—in fact something has been taken away—fluorine."

The statement goes on to explain that because of the annual testing of an old steam engine, it has been necessary to temporarily suspend fluoridation in part of Watford's water supply. The interest to the reader is, of course, the old steam engine, for such machines have a permanent place in the hearts of English people, but the editor could not resist a quip on the subject of fluoridation.

In the same category was the item in the *Newcastle Journal* of 15th June, 1959. This paragraph was headed " Bad Teeth from Water ", but it actually announced that South Shields was to have a new water supply in which the fluorine content was lowered. So, by a complicated negative reasoning, the water was " bad " for teeth !

The assertion that local newspapers have given a good deal of space to correspondence which is, on the whole, adverse to fluoridation, is true. The number of correspondents is very small and the way in which the same names turn up in regions of Britain far removed from each other suggests that the movement is organised. The number of people writing to the press in rebuttal, or advancing positive arguments or evidence in favour of fluoridation is also small. Medical Officers of Health are naturally amongst them, but again there are certain people who study the local press of all regions and who regularly take part in correspondence.

Editorial comment on this correspondence is not very frequent. To allow credit where it is due, the comment in the *Kilmarnock Standard* of 29th September, 1956, should be mentioned. A Mrs. Patullo, representing the Scottish Housewives' Association, had announced publicly, with no little satisfaction, that " the man who had put Fluorine into the water "—that is, the M.O.H. of Kilmarnock—had been ill himself. This was true—he had had cellulitis of a foot, a condition which could hardly be plausibly accepted by anyone as due to fluorine, but this fact was deliberately omitted. Editorial comment in the *Kilmarnock Standard* was as follows :

> " Is . . . her (Mrs. Patullo's) campaign against fluoridation in Kilmarnock making her a trifle spiteful ? Mrs. Patullo had stirred up a lot of dirty water, therefore she should . . . refrain in the interests of her cause and her personal dignity from throwing any of it at Dr. Nisbet."

A study of the press cuttings from the national and local press for the last three years shows that the opinions expressed by the writers of letters against fluoridation can be classified into five somewhat indefinite classes. These are : allegations that symptoms have been caused by adding fluoride to the water, political arguments, pseudo-chemical or pseudo-scientific arguments, pseudo-philosophical arguments, and arguments concerned with morals and ethics.

Typically, symptoms are described which have no specific character and which affect several systems of the body simultaneously. Thus a woman living in Andover told the *Daily Sketch*

(24th September, 1956), that " the water causes indigestion and it brought up a rash on my arms ". She added that the tea made with this water " looks stewed "—an extremely difficult standard for comparison. Two years later the same woman told the *Evening Standard* in a generalisation that fluorine in the water caused nausea, rashes, stomach disorders and listlessness. Such claims could be easily refuted, and the *Southern Daily Echo* (3rd January, 1957) stated that :

> " . . . a local doctor had told him there was an epidemic in Andover of psychologically induced illness. Old people with nothing wrong with them had been for treatment simply because of fears induced by the anti-fluoridation campaign."

In addition to complaints of actual symptoms there are many correspondents who express fears of what may happen to the bones and to the kidneys of older people who consume fluoridated water. Such ideas reflect total ignorance of physiology and typically underestimate the capacity as well as the integrity of trained scientists and practitioners.

A correspondent signing himself " An over 40 " in the *Hertford Times* (30th January, 1959), is an example. This person accepted that fluoridation might benefit children, but was anxious about what the effect would be on people over 40. He showed a lamentable lack of knowledge of modern parentcraft and preventive medicine when he claimed that fluoride tablets would be preferable because " aspirins and various medicines have to be given by mothers."

An examination of the political arguments allows further subdivision. An interesting general comment from the *Municipal Journal*, of 23rd January, 1959, was

> " Latterly the trend has been for health progress to depend less upon organised activities of the well established political parties than upon the tactics of various pressure groups which may, however, exploit the mechanisms of political power to gain their ends."

Such an idea could be applied to either side, but Dr. Dobbs, a microbiologist and a prominent anti-fluoridationist, definitely asserts that undercover political activities are afoot. The same assumption is made by Mrs. Kitty Meg Kitcat and Mr. R. A. de J. Hart of Taunton, and by Mrs. Sykes of the British Housewives' League. Dr. Dobbs wrote in the *Isle of Man Weekly Times :*

> " We have reached a stage of society in which it is inadvisable for any public official to go against the policy of a government department in matters of scientific opinion."

He went further and asserted that this was Lysenkoism. The same writer (*Liverpool Post*, 23rd June, 1958), said that fluoridation was a symptom of the managerial revolution in which "the individual becomes a statistical unit to be manipulated by a managerial elite". In the *Municipal Journal* of 12th July, 1957, he had made this extraordinary statement :

> "Fluoridation . . . is a pioneer application of the still almost embryonic science of epidemiology."

He went on to suggest that the evidence was not reliable because it was published in public health reports and not in ordinary scientific journals, where the authors might have been subject to "criticisms unhelpful from the promotional standpoint."

Mrs. Kitcat (*Somerset County Gazette*, 21st March, 1959) alleged that a secret directive had been issued to officials in the New Zealand Health Service. The behaviour and practices which were enjoined in this document were, she claimed, so similar to those observed among British officials that she could only conclude that a similar undercover activity was carried on here. The characteristics were : refusing to enter into discussion in the press, avoiding open debate with opponents, working for the support of small pressure groups and then serving them up as a demand by the general public, discouraging public meetings ; in short, declared Mrs. Kitcat "Anything which may give the public an impartial, unbrainwashed view of fluoridation is to be avoided".

Public meetings in Taunton had been addressed by the M.O.H., and a Ministry of Health Dental Officer had spoken at a professional meeting to which the press was admitted. Doctors had also written to the local press. Therefore it is difficult to believe that such a statement could have been accepted.

Mr. R. A. de J. Hart, also of Taunton, wrote to the *Somerset County Herald* on 25th April, 1959. Referring in fact to a meeting which, according to Mrs. Kitcat, should have been forbidden by the secret authority, Mr. Hart said :

> "The Ministry official suggested that one of the advantages of fluoridation is that it could be an automatic process and not an individual responsibility. The very fact of forcing medicine on people without their knowledge or against their will is one of the most ethically repugnant aspects of the case."

What the Ministry official referred to had actually said, however, after describing preventive measures based on mouth hygiene and correct nutrition of mothers and children, was

> "While some of these methods of prevention have proved

effective, the results on the whole have been disappointing. There is one thing which they all have in common, that is, the need for individual effort. Whether this is on the part of the mother or the child, it remains a fact that effort of one kind or another is entailed. One preventive measure which is not in this category is the addition of small quantities of fluoride to public water supplies, for this is done automatically at the water works."

Mrs. Sykes, in the same mood, wrote to the *Rotherham Advertiser* (2nd November, 1957), that " Fluoridation is not a public health measure, but a stunt for extending the power of public officials."

One argument is that fluoridation is a political measure aimed at controlling people's thoughts and actions. Thus we find the *Isle of Ely Advertiser* (19th September, 1956), states that :

" Rena M. Vale, former Communist, states . . . . fluoridation is known in Communist circles as a vehicle of red warfare affecting the brain and nerve cells, reducing initiative and the personality to cow-like docility."

" Mother of Four ", writing in the *Lancashire Evening Post*, (21st November, 1957), asked " didn't Communist Anna Pauker say that they would gain control of nations through water supplies ? ", while Mr. B. Cuff (*Lancashire Evening Post*, 9th July, 1957), claimed that " Fluoridated water has been used to render circus animals docile and tractable ". Mr. Cuff changed his emphasis, but not his tune, when he wrote in the same journal on 20th November, 1957, " Fluoridation is Mass Murder."

An interesting observation a propos of these claims was made by the *Daily Telegraph* (2nd July, 1958), when it quoted Professor Zhdanov, Deputy Minister of Health, U.S.S.R., as saying that Rumania was not (then) using fluorides !

We see, then, that there are some opponents who mistrust the measure because of fear of Communism. But there are some to whom the fact that it is a practice in the U.S.A. makes it equally disagreeable. For example, a Mr. Lindsay (*Scotsman*, 1st August, 1958), a Kilmarnock resident, who has refused to take a sip of Kilmarnock water since 1955, said :

" It may be all right for the Yanks who like bubbly gum and all that sort of trash, but we should know better."

At least one can say of such ideas that they leave the reader in no doubt as to their authors' beliefs and may well enable him to assess their standing from a scientific point of view. The more

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bizarre ideas will seem to be bizarre to the well-balanced section of the public.

Pseudo-chemistry and pseudo-science are another matter. The danger of these ideas is that they do not seem to be bizarre to the public at large, because of the general ignorance of science. For example, the *Isle of Man Weekly Times* (3rd August, 1956) quoted a statement, presumably from an American Journal *Awake*, which said that :

> " Fluorides which appear naturally are calcium fluoride, whereas that used artificially is sodium fluoride. The former is non-soluble and alkaline reacting, whereas the latter is soluble and acid reacting, both of which distinctions could have a vital effect on the body's enzymes and kidneys."

To the chemist and the physician alike, this statement has no meaning, but it is impressive to those who are ignorant of science and medicine. Again, words have been used which have come to be tendentious—it is striking that people are afraid of " acids " and show no dislike of alkalis. What is a " vital " effect ? Literally it must mean like-giving, but in this context the reverse is intended.

A medical man, an opponent of fluoridation, writing in the *Bedfordshire Times*, (6th March, 1959), used a curious syllogistic argument in which he pointed out that fluorine is a halogen and so is chlorine—fluorine is therefore irritant and corrosive. These statements are true, but they add nothing and subtract nothing as regards the controversy over fluoridation. Yet they are calculated at producing alarm amongst the public. Their author unwittingly reveals an underlying motive when he adds " public health specialists have little or no contact with individual patients yet they wish to dose daily every person living in the area of their jurisdiction." This picture of a medical officer of health is a misrepresentation and could have no effect if the readers were fully informed of the principles and practice of public health.

Mrs. Grant, another well known opponent of fluoridation, contributes a similar statement which seems reasonable to the untrained mind (*Spectator*, 2nd May, 1958). She says that

> " although the ions of sodium fluoride and calcium fluoride are identical, the biological effects are not. This has been proved by competent authorities in experiments on plants and on animals."

The fallacy here is obvious to all who understand the meaning of ionisation—Mrs. Grant's first statement is superfluous, but her

second statement is without foundation. To use Dr. Dobbs' words, one could point out that no scientific journal would accept such a statement without supporting evidence.

We find that Mrs. Grant disapproves of "chemicals" on principle. In her book *Housewives Beware*, she describes a "chemical dragon" which "is now breathing its foul breath over our food and water, polluting the air, invading our homes and our farms in many different guises, and always parading as the friend of man and therefore completely unsuspected by most of us. There is hardly a food on the market to-day which this dragon has not attacked. From the soil to the table our foods are subjected to a veritable succession of chemical assaults."

This curious mistrust of chemistry is a familiar feature of the psychology of small groups of people who continue to protest—despite the evidence to the contrary—that modern food technology is slowly poisoning the community.

Another example is the letter from Mr. James, President of the Bedford Natural Health Society (*Bedfordshire Times*, 13th March, 1959). He says that the "rule is that life lives (sic) on organic matter not too far below its own level . . . . . no mineral can become part of a living organism." A suitable reply to this statement was that of Mr. Maude, (*Bedfordshire Times*, 27th March, 1959), who asked what was the basis for the assertion that no mineral can become part of a living organism. Three quarters of the human body, continued Mr. Maude, consists of water. Can it be proved that all this water is derived from animal and vegetable sources? What is meant by a pure water supply?—no distilled water was ever supplied (for public consumption).

Another manoeuvre of anti-fluoridationists is to assert that the deliberate addition of fluoride to the water causes the furring of kettles. It is interesting to see, therefore, that in Andover the claim was made, on the contrary, that fluoridation caused "de-furring" of kettles. In neither case is this phenomenon considered to be harmless. For example, Mr. Server (*West Herts Observer*, 26th April, 1957), wrote saying:

> "Pots and pans are furred inches thick. What happens to the water pipes can be imagined. New kettles are needed every four months or so, as the water eats holes into the metal."

On the other hand, the *Evening Standard* had reported on 31st July, 1956, that at Andover

> "A few months ago, it was the common thing in the town for kettles to fur up. Then fluoride was added . . . kettles

have de-furred. And they believe it is one of the results of fluoride."

In the meantime a rational explanation was forthcoming from a Mr. McLelland (*Municipal Engineering*, 8th March, 1957). He pointed out that it is necessary to soften a hard water before fluoridation and that perhaps this softening was the cause of the defurring of kettles.

The " aluminium potency " question, to which brief mention has already been made, would not convince any person of commonsense even if their education had not included a smattering of science. This was apparent when it was revealed that tests for " aluminium potency " were made by swinging a pendulum over a sample of water while concentrating on " some word like ' centesimal ' ". This kind of theory is not even pseudo-science.

Mrs. Grant's assertion that fluoridation would cause precipitation of " highly insoluble Sr. 90 " is in a more mischievous category. There is widespread public anxiety concerning ionising radiations, and such a suggestion is likely to cause alarm. Writing in the *Liverpool Post* (21st July, 1957), Mrs. Grant quoted the views of a Jas. Kerwin, of New Jersey, alleging that there is a hazard due to the affinity of strontium and fluoride to form a highly insoluble " Strontium 90 F_2". This would be precipitated in the body, elimination would be delayed, resulting in an increase of internal radiation. This would lead to more leukaemia and bone cancer. Needless to say, this was refuted immediately by a letter from an authoritative source, and the issue does not appear to have made much impression on the public mind.

By comparison with the large volume of correspondence on the above matters, that dealing with morals and ethics is small. Mrs. Kitcat (*Somerset County Gazette*, 12th July, 1958), has stated that the anti-fluoridation movement has two main premisses. The first is that :

> " undergoing any form of preventive medicine or drug taking must be voluntary and that every person has the right to follow the advice of medical men in whom he has confidence. Indiscriminate administration of any chemical—even one less highly toxic than fluoride—is improper and constitutes a complete break with the prescriptions of medical practice."

The second premiss is that " while opinion remains divided, there is no case for fluoridating mains water."

From three completely different sources come refutations of such an argument. The Medical Correspondent of the *Batley News*

(News Doctor, 1st March, 1958) wrote, in reply to a letter in similar vein :

> " Your correspondent talks about it being morally wrong to impose fluoridation of water on the public if one single person in Britain objected to it. By the same token our police force and our churches should be abolished—we have criminals and atheists amongst us."

Professor MacGregor (*Southern Daily Echo*, 14th January, 1957) wrote :

> " If any of us wish to drink water that has not been purified and treated (without any question of fluoridation) by a water company, to eat meat that might have been condemned by an inspector, or articles of food that have gone bad because they have contained no chemical preservative, we are all at liberty to do so and can at the same time surround ourselves with flies and rats. We must, however, move away from civilised surroundings."

The Chemical Age (13th October, 1956) commented :

> " It would more fairly be called compulsory nutrition, for the function of the fluoride is to make up the dietary amount that is in fact insufficient for good dental maintenance."

It is noticeable that professional journals dealing with civil engineering have adopted a cautious attitude to fluoridation and that their columns have been open to writers who are opposed to this measure. Some engineers are apparently concerned lest their professional skill be utilised in pursuit of something which might be doubtful ethically. For example, the reviewer of a book by B.C. Nesin, *An Approach to Water Supply Toxicology* wrote in *Water* (October, 1956) :

> " Many engineers may not appreciate how greatly the water supply profession is concerned with matters involving toxicity and too often are inclined to delegate such discussions to a relatively small group of isolated specialists."

There is no evidence, however, that water engineers or civil engineers, as a profession, are in opposition to fluoridation.

The foregoing is not so much an account of public opinion as a digest of letters written to the newspapers in opposition to fluoridation. In one case only has a layman written in favour of the measure, and then only indirectly, because he wished to question the arguments of a nature cure enthusiast.

Opposition to fluoridation is fomented by a few people whose

motives appear to be complex. They aim at deliberately creating fear in the minds of those most susceptible—the elderly who have received no scientific education and who are naturally bewildered in an age of applied science. Although they treat the findings of reputable people with scorn, they do not scruple to quote the nonsense of pseudo-science with authority, even to the extent of investing it with a jargon calculated to impress the ignorant.

However, abuse of the anti-fluoridationists will not help—our duty is to give accurate information in simple terms. A study of the arguments used against fluoridation shows that the greatest handicap is the absence of science in the basic culture of the public and in particular an ignorance of the epidemiological method. There is no doubt that public education in statistical methods, and how conclusions are drawn from them, is long overdue. One is forced to the conclusion that fluoridation has overtaken health education of the public, and that should be accepted as a warning to increase the quantity and quality of our efforts in this direction. We must also remember Dr. J. V. Walker's remark that not enough was known about the matter—public relations is an important activity to which it behoves all officials to pay strict attention.

REVIEWS

FIRST REPORT ON THE WORLD HEALTH SITUATION 1954-56. (Official Records of WHO No. 94. May 1959. Pp. viii + 392. Price 17s. 6d.).

This report covers the period 1954-56. Although it comprises 391 pages it is easily readable and can therefore be enjoyed by a wide range of readers, including many from outside the public health field. It is divided into two parts: a general survey, and reviews from 157 countries and territories. These reviews cover the state of the public health, the health services and the more important ethnographical factors. This information will help the reader to appreciate the many different kinds of backgrounds against which efforts are being made to promote health and welfare. A graphic rather than a statistical interpretation of the findings in these reviews would have given a clearer picture.

In the general survey the different subjects describe the problems involved in promoting health and in administering the health services. What is health? How can we depict it in concrete terms? In the report it is mainly depicted by life expectancy, mortality and morbidity rates, and so only one side of the health problem is presented, and mental and social factors are not dealt with. This difficulty of mainly having to rely on a statistical picture also arises in the second part of the report.

It is stated that the need for an efficient health administration and reliable statistics is being recognised more fully to-day, but they are often difficult to obtain because of a lack of trained personnel. A knowledge is also required of what type of statistical information should be used. Random sample researches are suggested as preferable, since they are easy to carry out and are the most reliable.

The report gives an interesting survey of the situation as it is to-day in the many different fields of health care. Among these general trends can be included a lack of hospital aftercare services aimed at restoring patients to their fullest physical and mental capacity; accident prevention demands attention, for the morbidity rate following accidents, particularly among children, is high; the care of the chronic sick and the aged is also an outstanding problem; the maternal and child welfare services are regarded everywhere as being important, but in the tropics the age group 2-5 years has often been neglected, and high morbidity and mortality rates prevail. Both preventive and curative mental health programmes for children and adults are being developed in most countries, but a lack of trained personnel has proved a delaying factor. The report emphasises the importance of including preventive as well as curative mental health in the training of medical students. In some European countries, in addition to in-patient treatment for mental illness, a system of home care treatment has also been instituted with very good results. Industrial development has led to the foundation of occupational health centres which have reached a very high standard of efficiency in some places. Preventive and clinical care, accident prevention and research are among the tasks for occupational health workers.

In the general education and training of medical students, nurses and auxiliary personnel in the health services, insufficient attention is being paid to the nonclinical factors, such as social and economic backgrounds and nutritional habits. This deficiency is, however, starting to be overcome both in Europe and South America. In most countries, there is a general shortage of nurses. A single answer cannot be given to explain this shortage, but the causes include economic factors, primitive customs and prejudices and the special status of women in some places. In the less developed countries the shortage of midwives is often as severe as that of nurses. Almost everywhere, there is also a shortage of all types of auxiliary health personnel.

In many countries the new field of health education is being developed and its influence is being felt by people of all ages. A united team is one of the essentials of successful health education. Although most countries have realised

the need for a health education programme, it has not always been possible to set up an ideal organisation. A contributory factor is the inadequate provision in the training of health personnel in the methods of health education, to allow them to develop this service successfully.

Communicable diseases such as malaria, smallpox and tuberculosis have remained serious problems, in spite of major campaigns against them. On the other hand, the incidence of infectious diseases such as trachoma, salmonella and yellow fever has fallen dramatically. Communicable diseases of childhood are no longer a main cause of death in Europe or North America, but they still remain a serious problem in many other parts of the world.

Every country has problems arising from long-term disabilities such as those following poliomyelitis, meningitis, birth injury, chronic rheumatism, cerebral palsy, cardiovascular disorders, chronic respiratory diseases and malignancy. In most of these disorders preventive measures are not always possible, and much health care must be devoted to them in the future.

In many countries, attention is being given to the early diagnosis of diseases such as cancer and tuberculosis before specific symptoms develop. A more widespread knowledge of the measures adopted for early detection is required by the public, and sometimes also by the medical profession. High cost and lack of staff and equipment are limiting factors.

The first part of the report deals with some aspects of health such as the influence of geographical and environmental conditions, dental care and nutrition. Nutrition remains a major problem in many countries and is a subject for research all over the world.

At the conclusion of the general survey future developments of short and long term health programmes that are being planned throughout the world are given. Perhaps it would have been interesting to include here the need for economic and industrial progress to keep pace with the health care programme. It is the unequal progress in these fields that is responsible for some of the major problems in the under-developed areas.

The second part of the volume is composed of the reports submitted by the governments and territories concerned. The interested reader can find in these reviews numerous items in which details of all kinds of health organisations and health care are given.

All who are interested in public health and world problems are recommended to read this First Report on the World Health Situation 1954-56.

J. WINGREN.
A. A. OMAR.
B. R. KEENE.

A PRELIMINARY MANUAL OF CHILD CARE, by B. R. Keene (St. John Ambulance Association. 1959. Pp. 80. Price 3s.)

It is always more pleasant to describe the perfect rather than the not-so-perfect, and in this book, so admirably written and illustrated, Miss Keene clearly leads the way to understanding a normal child.

It is an excellent guide to following the growth of the child from birth to school age, and much useful information is given, particularly in the paragraph on " Play ", which is so often ignored in a book of this kind. But do all five-year-olds go so happily to school ? I think not ; and children do cry occasionally.

One paragraph only is devoted to breast feeding. The chapter on the care of the feeding bottle is clearly written, but more on the advantages of breast feeding and less on this would have been better. As Miss Keene is a health visitor, this omission is very surprising. And why say " the family doctor *or* health visitor " rather than " the family doctor *and* health visitor ", giving the impression that they are in opposition rather that partners ?

However, the adolescent can learn much from this book and will obtain from it a clear picture of the development of a normal child.

WINIFRED M. CHUNE.

HABIT TRAINING AND BEDWETTING, by Mary Martin. (Delisle. 1959. Pp. 32. Price 1s.).

For the mother who faces a pile of wet napkins and bedclothes every morning, this pamphlet will be an inspiration and encouragement ; and to the new mother, who is wondering how to train her baby to be clean and dry, it will provide explanation, advice and comfort.

It is divided into short chapters on the urinary system (why no diagram ?),

habit training, causes of bed-wetting and its treatment. It is simply written and clearly divided into paragraphs.

The author gives a list of simple physical causes for this distressing condition, but the belief that bad teeth, septic tonsils, adenoids or threadworms may be among them, is not now held by medical authorities.

Emotional upsets are recognised as being the main cause of enuresis, when the child is anxious or insecure in some way.

Orthodox advice is given on general care of the child, with the excellent tips that the toddler should see the new baby for the first time in his cot or in the arms of a friend, and not in his mother's arms, so that he does not feel that his own position has been usurped ; and for the child of six or over, use of the electrical bell-ringing apparatus, which, it is claimed, has been successful in over 75% of suitable cases.

This pamphlet joins an already large collection of publications on the same subject, but it offers a fresh approach and is of very real value.

FREDA HOPKINS.

HEART DISEASE : HOW I CURED MYSELF, by Ronald Hall. (Published by the author at 8 Chapel Hill, Lewes, Sussex. 1959. Pp. 55. No price stated.)

The author, having suffered from heart disease, and a cerebral thrombosis five years ago, was treated in hospital with the usual drugs and the accepted treatment in nursing care and bed rest. He was eventually sent home, and for a whole year took things very easily, but became more and more of an invalid both physically and mentally.

He then decided that what he really needed was exercise, and he gradually developed a daily routine of a cold bath, a seven-mile walk (uphill), small frequent meals, and no drugs. Four years later he is still alive to tell the tale, and apparently x-ray reveals no sign of heart disease.

It must be remembered that this is one individual case, and it would be extremely dangerous for other patients to try out Mr. Hall's theories. In fact, in setting these theories out, the author shows complete lack of knowledge, in the scientifically accepted sense, of the working of the body organs.

Mr. Hall has pet theories about a number of other subjects, including the common cold, cancer, rheumatism and high blood pressure. Most of these, he feels, may be prevented—or even cured—by taking a cold bath each morning.

Two of the three illustrations by Rex Whistler seem to be quite irrelevant to the text.

K. J. HAYES.

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